

Appl. No. 10/707,773
Amdt. dated June 1, 2006
Reply to Office action of April 14, 2006

REMARKS/ARGUMENTS

1. Rejection of claims 1-4 and 6-9 under 35 U.S.C. 103(a):

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arslain et al (US 6,366,153) in view of Official Notice.

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Response:

The applicant would like to point out the patentable features of independent claims 1 and 6 over Arslain.

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Arslain teaches lowering the FET slew rate or switching frequency to lower the load of the FET. On the other hand, the present invention controls the working frequency of the PWM device to protect the device. In the present invention, the total load will not be changed because of the change in the working frequency. By adjusting the frequency in order to protect the PWM device, the present invention enables the PWM to have a longer lifespan and to waste less power.

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Furthermore, claim 1 contains the limitation of "when the present working temperature is lower than the minimum limiting temperature, the working frequency of the PWM device will be increased in the step variation frequency". Arslain, on the other hand, does not mention detecting when the temperature falls below a minimum temperature, and only teaches detecting when the temperature exceeds a first set temperature (column 3, lines 14-26 and column 4, lines 27-38). Although Arslain teaches in column 5, lines 15-22 that when the temperature falls below the first set temperature, the frequency is returned to its normal value, Arslain still fails to teach increasing the working frequency when the temperature falls below a minimum temperature.

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Claim 6 contains the limitation of "when the present working temperature is lower than a minimum limiting temperature, increasing the working frequency of the PWM device in the step variation frequency". As described above with respect to claim 1, Arslain fails to teach this limitation. Therefore, independent claims 1 and 6 should each be allowable over the cited prior art. Claims 2-5 and 7-10 are dependent on claims 1 and 6, and should be allowed if claims 1 and 6 are allowed. Reconsideration of claims 1-10 is respectfully requested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)